



INTERIM GASB 74/75 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2018

STATE OF INDIANA

Revised December 31, 2018

CONTACT

Randy Gomez FSA, FCA, MAAA
randy.gomez@nyhart.com

ADDRESS

Nyhart
8415 Allison Pointe Blvd. Suite 300
Indianapolis, IN 46250

PHONE

General	(317) 845-3500
Toll-Free	(800) 428-7106
Fax	(317) 845-3654

Table of Contents

	Page
Certification	1
Section A – Executive Summary Summary of Results	A – 1
Section B – State Personnel	B – 1 to B – 10
Section C – Legislature	C – 1 to C – 7
Section D – Indiana State Police	D – 1 to D – 10
Section E – Conservation and Excise Police	E – 1 to E – 10



December 31, 2018

Lisa Acobert
State of Indiana
Indiana State Budget Agency
200 West Washington Street, Room 212
Indianapolis, IN 46204

This report summarizes the GASB actuarial valuation for the State of Indiana 2017/18 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

A handwritten signature in black ink that reads "Randy Gomez".

Randy Gomez, FSA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads "Emily Clauss".

Emily Clauss, ASA, MAAA
Valuation Actuary

SECTION A - EXECUTIVE SUMMARY



Executive Summary

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Summary of Results

Presented below is the summary of GASB 74/75 results (for all employee groups) for the fiscal year ending June 30, 2018.

<i>As of June 30, 2018</i>	<i>State Personnel</i>	<i>Legislature</i>	<i>Indiana State Police (ISP)</i>	<i>Conservation and Excise Police (CEP)</i>	<i>Total</i>
Total OPEB Liability	\$ 47,525,294	\$ 9,994,526	\$ 324,517,099	\$ 60,902,667	\$ 442,939,586
Actuarial Value of Assets	(45,489,242)	0	(117,362,956)	(20,235,818)	(183,088,016)
Net OPEB Liability	\$ 2,036,052	\$ 9,994,526	\$ 207,154,143	\$ 40,666,849	\$ 259,851,570
Funded Ratio	95.7%	0.0%	36.2%	33.2%	41.3%

<i>For FY 2017/18</i>	<i>State Personnel</i>	<i>Legislature</i>	<i>ISP</i>	<i>CEP</i>	<i>Total</i>
OPEB Expense	\$ 2,214,420	\$ 157,551	\$ (168,917,117)	\$ 3,714,910	\$ (162,830,236)
Annual Employer Contribution	\$ 3,384,366	\$ 620,280	\$ 25,813,525	\$ 6,240,555	\$ 36,058,726

<i>As of June 30, 2018</i>	<i>State Personnel</i>	<i>Legislature</i>	<i>ISP</i>	<i>CEP</i>
Discount Rate	3.87%	3.87%	3.87%	3.87%
Expected Return on Assets	3.25%	3.25%	3.25%	3.25%

SECTION B – STATE PERSONNEL



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability		FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$	53,040,129
Service cost		2,113,477
Interest		1,909,791
Changes of benefit terms		0
Changes in assumptions		(1,163,973)
Differences between expected and actual experience		(5,331,960)
Benefit payments		(3,042,170)
Net change in total OPEB liability	\$	(5,514,835)
Total OPEB liability – end of year	\$	47,525,294
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$	44,998,027
Contributions – employer		3,384,366
Contributions – active employees		0
Net investment income		546,743
Benefit payments		(3,042,170)
Trust administrative expenses		(397,724)
Net change in plan fiduciary net position	\$	491,215
Plan fiduciary net position – end of year	\$	45,489,242
Net OPEB Liability – end of year	\$	2,036,052
Plan fiduciary net position as % of total OPEB liability		95.7%
Covered employee payroll ¹	\$	1,262,054,123
Net OPEB liability as % of covered payroll		0.7%

¹ Based on covered payroll for FY 2016/17 increased by the payroll growth inflation assumption (2.25%).



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2017/18</i>	<i>FY 2016/17</i>	<i>FY 2015/16</i>	<i>FY 2014/15</i>	<i>FY 2013/14</i>
Actuarially Determined Contribution (ADC)	\$ 3,042,170 ²	\$ 3,060,429	\$ 1,537,527	\$ 1,838,675	\$ 1,009,935
Contributions in relation to the ADC ³	3,384,366	4,801,561	2,977,166	3,567,257	3,200,158
Contribution deficiency / (excess)	\$ (342,196)	\$ (1,741,132)	\$ (1,439,639)	\$ (1,728,582)	\$ (2,190,223)
Covered employee payroll	\$ 1,262,054,123	\$ 1,234,282,761	\$ 1,148,771,000	\$ 1,180,296,000	\$ 1,219,424,000
Contribution as a % of covered employee payroll	0.3%	0.4%	0.3%	0.3%	0.3%

	<i>FY 2012/13</i>	<i>FY 2011/12</i>	<i>FY 2010/11</i>	<i>FY 2009/10</i>	<i>FY 2008/09</i>
Actuarially Determined Contribution (ADC)	\$ 940,502	\$ 2,964,232	\$ 4,664,253	\$ 6,292,153	\$ 7,715,915
Contributions in relation to the ADC ⁴	4,202,964	33,849,768	16,922,179	1,913,380	1,796,334
Contribution deficiency / (excess)	\$ (3,262,462)	\$ (30,885,536)	\$ (12,257,926)	\$ 4,378,773	\$ 5,919,581
Covered employee payroll	\$ 1,208,402,000	\$ 1,166,823,000	\$ N/A	\$ N/A	\$ 1,130,900,000
Contribution as a % of covered employee payroll	0.3%	2.9%	N/A	N/A	0.2%

² Refer to the Actuarially Determined Contributions section for the calculation details.

³ Includes employer contribution for pay-go cost and (any) pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.56%
Discount rate as of end of fiscal year	3.87%
Service cost	\$ 2,113,477
Interest	1,909,791
Changes of benefit terms	0
Projected earnings on OPEB plan investments	(1,461,541)
Reduction for contributions from active employees	0
OPEB plan administrative expenses	397,724
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ (761,709)
Changes in assumptions	(166,282)
Net difference between projected and actual earnings on OPEB plan investments	182,960
Total current period recognition	\$ (745,031)
Total OPEB expense	\$ 2,214,420



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (5,331,960)	7	\$ (761,709)	\$ (4,570,251)

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (1,163,973)	7	\$ (166,282)	\$ (997,691)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ 914,798	5	\$ 182,960	\$ 731,838

<i>As of fiscal year ending June 30, 2018</i>	<i>Deferred Outflows</i>		<i>Deferred Inflows</i>	
Differences between expected and actual experience	\$	0	\$	(4,570,251)
Changes in assumptions		0		(997,691)
Net difference between projected and actual earnings in OPEB plan investments		731,838		0
Total	\$	731,838	\$	(5,567,942)



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources - Continued

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2018 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2019	\$ (745,031)
2020	\$ (745,031)
2021	\$ (745,031)
2022	\$ (745,033)
2023	\$ (927,991)
Thereafter	\$ (927,987)

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2018, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.87%.
- The 1% decrease in discount rate would be 2.87%.
- The 1% increase in discount rate would be 4.87%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 5,914,119
Current Discount Rate	\$ 2,036,052
1% Increase	\$ (1,489,802)

The following presents the net OPEB liability as of June 30, 2018, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.5% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.5% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.5% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ (2,699,949)
Current Health Care Trend Rates	\$ 2,036,052
1% Increase	\$ 7,588,609



Asset Information (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>
Assets	
Cash and cash equivalents	\$ 239,607
Securities lending cash collateral	0
Total cash	\$ 239,607
Receivables	
Contributions	\$ 543,648
Accrued interest	43,055
Total receivables	\$ 586,703
Investments	
Fixed income	\$ 44,872,553
Equities	0
Mutual Funds	0
Other	0
Total investments	\$ 44,872,553
Total assets	\$ 45,698,863
Liabilities	
Payables	
Investment management fees	\$ 0
Benefits	(209,621)
Total liabilities	\$ (209,621)
Net position restricted to OPEB	\$ 45,489,242

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>
Additions	
Contributions received	
Employer	\$ 3,384,366
Employee	0
Total contributions	\$ 3,384,366
Investment income	
Net increase in fair value of investments	\$ 546,743
Interests and dividends	0
Investment expense, other than from securities lending	0
Securities lending income	0
Securities lending expense	0
Net investment income	\$ 546,743
Total additions	\$ 3,931,109
Deductions	
Benefit payments (net of retiree contributions)	\$ (3,042,170)
Administrative expenses	(397,724)
Other	0
Total deductions	\$ (3,439,894)
Net increase in net position	\$ 491,215
Net position restricted to OPEB	
Beginning of year	44,998,027
End of year	\$ 45,489,242



Actuarially Determined Contributions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Actuarially Determined Contribution

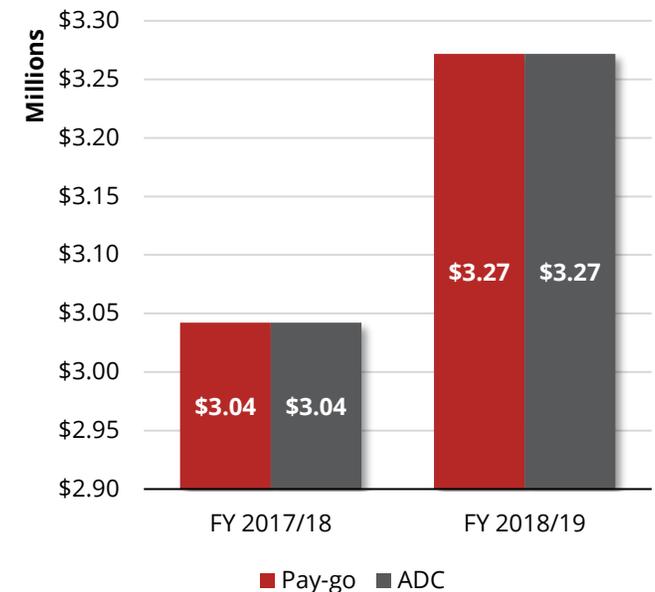
The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2017/18	FY 2018/19
Discount rate	4.50%	4.50%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	29 years	28 years
Actuarial accrued liability (AAL) – beginning of year	\$ 44,936,454	\$ 45,263,848
Actuarial value of assets – beginning of year	(44,998,027)	(45,489,242)
Unfunded AAL – beginning of year	\$ (61,573)	\$ (225,394)
Normal Cost	\$ 1,641,486	\$ 1,715,353
Amortization of UAAL	(3,678)	(13,701)
Total normal cost plus amortization	\$ 1,637,808	\$ 1,701,652
Interest to the end of year	73,701	76,574
Actuarially Determined Contribution – Preliminary	\$ 1,711,509	\$ 1,778,226
Expected benefit payments ⁴	3,042,170	3,271,785
Actuarially Determined Contribution – Final⁵	\$ 3,042,170	\$ 3,271,785

⁴ Actual for FY 2017/18

⁵ Set to be the greater of the preliminary ADC and expected benefit payments.

Cash vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.



Discussion of Discount Rates (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

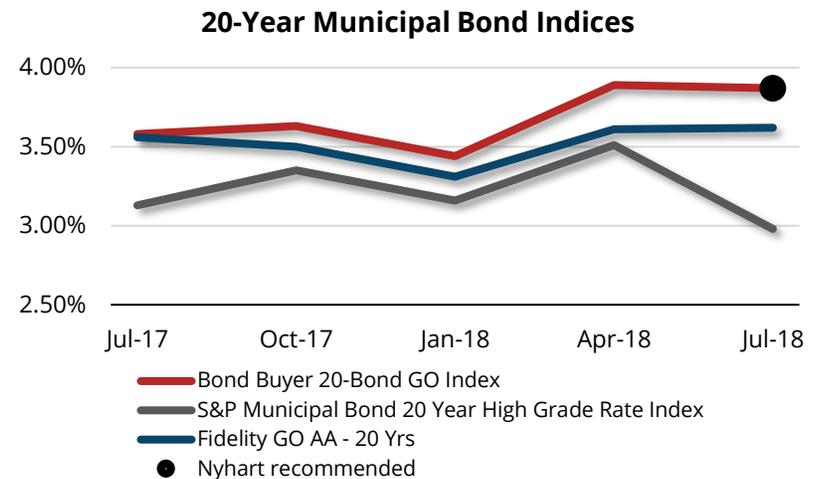
1. The long-term expected rate of return on OPEB plan investment is 3.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.25%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2018 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR (JP Morgan)
U.S. Bond	100.00%	1.00%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2017	June 30, 2018
Bond Buyer Go 20-Bond Municipal Bond Index	3.58%	3.87%
S&P Municipal Bond 20-Year High Grade Rate Index	3.13%	2.98%
Fidelity 20-Year Go Municipal Bond Index	3.56%	3.62%
Bond Index Range	3.13% - 3.58%	2.98% - 3.87%
Actual Discount Rate Used	3.56%	3.87%

3. The final equivalent single discount rate used for this year's valuation is 3.56% as of July 1, 2017 and 3.87% as of June 30, 2018, due to the long-term expected rate of return on OPEB plan investment that is lower than the 20-year tax-exempt general obligation municipal bonds yield.





Summary of Key Actuarial Assumptions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

For a complete summary of actuarial methods and assumptions, refer to the GASB 74/75 actuarial valuation report for the fiscal year ending June 30, 2017.

Measurement Date

For fiscal year ending June 30, 2018, June 30, 2018 measurement date was used.

Actuarial Valuation Date

July 1, 2017 with results actuarially projected on a “no gain / no loss” basis to get to the June 30, 2018 measurement date. Liabilities as of July 1, 2017 are based on an actuarial valuation date of July 1, 2017.

Discount Rate

3.56% as of July 1, 2017 and 3.87% as of June 30, 2018 for accounting disclosure purposes
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Payroll Growth

2.25% for general wage inflation plus the following merit and productivity increases which are based on the assumption used in the Indiana Public Retirement System (INPRS) actuarial valuation as of June 30, 2016.

Age	General
20	2.00%
30	2.00%
40	1.50%
50	1.00%

Inflation Rate

2.25% per year

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2019	8.5%	2024	6.0%
2020	8.0%	2025	5.5%
2021	7.5%	2026	5.0%
2022	7.0%	2027+	4.5%
2023	6.5%		

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and
- annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.



Actuary's Notes (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual claims and enrollment experience for the 24 months ending May 2018 and premium rate changes from 2018 to 2019. Making this change resulted in a decrease in liabilities.

Additionally, we have updated the discount rate assumption to be based on the yield for 20-year-tax-exempt general obligation municipal bonds as of June 30, 2018 (measurement date). The discount rate is 3.87% as of June 30, 2018 and 3.56% as of July 1, 2017. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in a reduction in liabilities.

Premium Rates

The 2018 and 2019 monthly premium rates by plan for non-tobacco users are as shown below:

Plans	Eff. 1/1/2018		Eff. 1/1/2019	
	Single	Family	Single	Family
CDHP 1	\$ 534.04	\$ 1,598.74	\$ 552.63	\$ 1,656.59
CDHP 2	\$ 759.85	\$ 2,207.53	\$ 781.95	\$ 2,271.88
CDHP Wellness	\$ 483.34	\$ 1,469.78	\$ 501.80	\$ 1,527.63
Traditional PPO	\$ 1,301.30	\$ 3,691.61	\$ 1,374.93	\$ 3,900.83

SECTION C - LEGISLATURE



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability		FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$	11,987,469
Service cost		120,023
Interest		420,082
Changes of benefit terms		0
Changes in assumptions		(385,363)
Differences between expected and actual experience		(1,527,405)
Benefit payments		(620,280)
Net change in total OPEB liability	\$	(1,992,943)
Total OPEB liability – end of year	\$	9,994,526
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$	0
Contributions – employer		620,280
Contributions – active employees		0
Net investment income		0
Benefit payments		(620,280)
Trust administrative expenses		0
Net change in plan fiduciary net position	\$	0
Plan fiduciary net position – end of year	\$	0
Net OPEB Liability – end of year	\$	9,994,526
Plan fiduciary net position as % of total OPEB liability		0.0%
Covered employee payroll	\$	N/A
Net OPEB liability as % of covered payroll		N/A



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.56%
Discount rate as of end of fiscal year	3.87%
Service cost	\$ 120,023
Interest	420,082
Changes of benefit terms	0
Projected earnings on OPEB plan investments	0
Reduction for contributions from active employees	0
OPEB plan administrative expenses	0
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ (305,481)
Changes in assumptions	(77,073)
Net difference between projected and actual earnings on OPEB plan investments	0
Total current period recognition	\$ (382,554)
Total OPEB expense	\$ 157,551



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

4. Differences between expected and actual experience of the OPEB plan
5. Changes of assumptions
6. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (1,527,405)	5	\$ (305,481)	\$ (1,221,924)

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (385,363)	5	\$ (77,073)	\$ (308,290)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ 0	5	\$ 0	\$ 0

<i>As of fiscal year ending June 30, 2018</i>	<i>Deferred Outflows</i>		<i>Deferred Inflows</i>	
Differences between expected and actual experience	\$	0	\$	(1,221,924)
Changes in assumptions		0		(308,290)
Net difference between projected and actual earnings in OPEB plan investments		N/A		N/A
Total	\$	0	\$	(1,530,214)



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources - Continued

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2018 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2019	\$ (382,554)
2020	\$ (382,554)
2021	\$ (382,554)
2022	\$ (382,552)
2023	\$ 0
Thereafter	\$ 0

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2018, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.87%.
- The 1% decrease in discount rate would be 2.87%.
- The 1% increase in discount rate would be 4.87%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 11,329,908
Current Discount Rate	\$ 9,994,526
1% Increase	\$ 8,899,499

The following presents the net OPEB liability as of June 30, 2018, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.5% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.5% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.5% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 8,828,649
Current Health Care Trend Rates	\$ 9,994,526
1% Increase	\$ 11,398,397



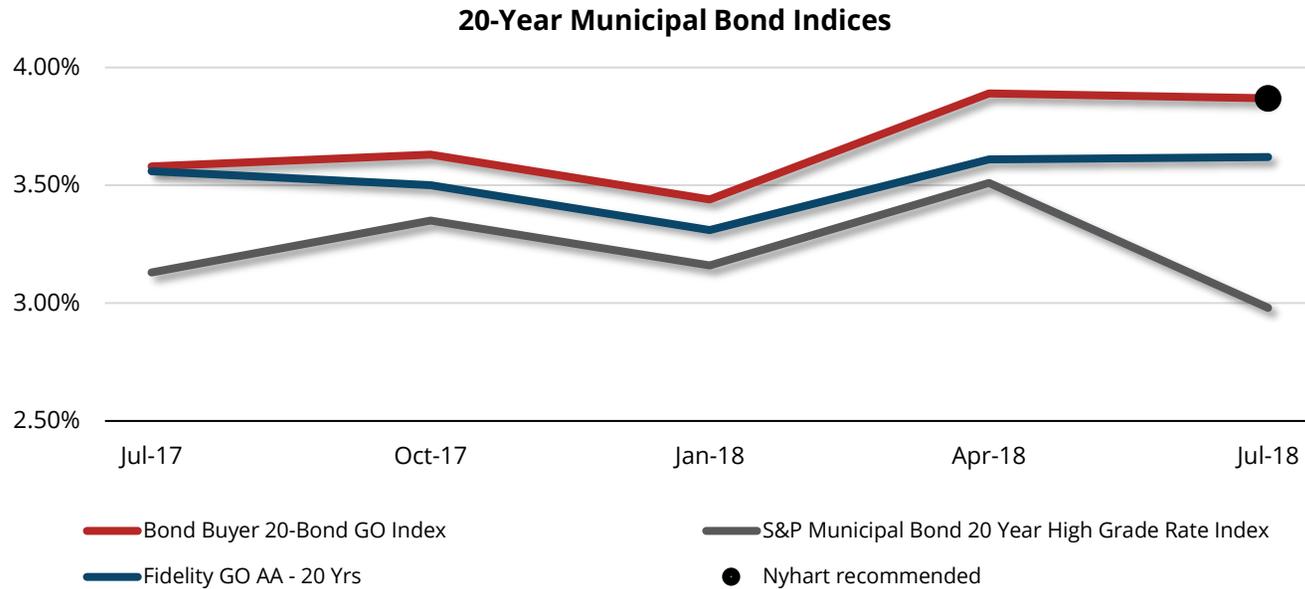
Discussion of Discount Rates (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Under GASB 75, the discount rate used in valuing OPEB liabilities for unfunded plans as of the Measurement Date must be based on a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale).

For the current valuation, the discount rate was selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

	Bond Buyer Go 20-Bond Municipal Bond Index	S&P Municipal Bond 20-Year High Grade Rate Index	Fidelity 20-Year Go Municipal Bond Index	Nyhart Range	Actual Discount Rate Used
Yield as of July 1, 2017	3.58%	3.13%	3.56%	3.13% - 3.58%	3.56%
Yield as of June 30, 2018	3.87%	2.98%	3.62%	2.98% - 3.87%	3.87%





Summary of Key Actuarial Assumptions (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

For a complete summary of actuarial methods and assumptions, refer to the GASB 74/75 actuarial valuation report for the fiscal year ending June 30, 2017.

Measurement Date

For fiscal year ending June 30, 2018, June 30, 2018 measurement date was used.

Actuarial Valuation Date

July 1, 2017 with results actuarially projected on a “no gain / no loss” basis to get to the June 30, 2018 measurement date. Liabilities as of July 1, 2017 are based on an actuarial valuation date of July 1, 2017.

Discount Rate

3.56% as of July 1, 2017 and 3.87% as of June 30, 2018 for accounting disclosure purposes
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Payroll Growth

2.25% for general wage inflation plus the following merit and productivity increases which are based on the assumption used in the Indiana Public Retirement System (INPRS) actuarial valuation as of June 30, 2016.

Age	General
20	2.00%
30	2.00%
40	1.50%
50	1.00%

Inflation Rate

2.25% per year

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2019	8.5%	2024	6.0%
2020	8.0%	2025	5.5%
2021	7.5%	2026	5.0%
2022	7.0%	2027+	4.5%
2023	6.5%		

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and
- annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.



Actuary's Notes (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual claims and enrollment experience for the 24 months ending May 2018 and premium rate changes from 2018 to 2019. Making this change resulted in a decrease in liabilities.

Additionally, we have updated the discount rate assumption to be based on the yield for 20-year-tax-exempt general obligation municipal bonds as of June 30, 2018 (measurement date). The discount rate is 3.87% as of June 30, 2018 and 3.56% as of July 1, 2017. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in a reduction in liabilities.

Premium Rates

The 2018 and 2019 monthly premium rates by plan for non-tobacco users are as shown below:

Plans	Eff. 1/1/2018		Eff. 1/1/2019	
	Single	Family	Single	Family
CDHP 1	\$ 534.04	\$ 1,598.74	\$ 552.63	\$ 1,656.59
CDHP 2	\$ 759.85	\$ 2,207.53	\$ 781.95	\$ 2,271.88
CDHP Wellness	\$ 483.34	\$ 1,469.78	\$ 501.80	\$ 1,527.63
Traditional PPO	\$ 1,301.30	\$ 3,691.61	\$ 1,374.93	\$ 3,900.83

SECTION D - INDIANA STATE POLICE



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2017/18
Total OPEB Liability	
Total OPEB liability – beginning of year	\$ 539,736,386
Service cost	17,810,791
Interest	19,725,281
Changes of benefit terms	(196,573,638)
Changes in assumptions	(27,946,460)
Differences between expected and actual experience	(21,241,592)
Benefit payments	(6,993,669)
Net change in total OPEB liability	\$ (215,219,287)
Total OPEB liability – end of year	\$ 324,517,099
Plan Fiduciary Net Position	
Plan fiduciary net position – beginning of year	\$ 97,322,900
Contributions – employer	25,813,525
Contributions – active employees	404,060
Net investment income	1,422,502
Benefit payments	(6,993,669)
Trust administrative expenses	(606,362)
Net change in plan fiduciary net position	\$ 20,040,056
Plan fiduciary net position – end of year	\$ 117,362,956
Net OPEB Liability – end of year	\$ 207,154,143
Plan fiduciary net position as % of total OPEB liability	36.2%
Covered employee payroll ⁶	\$ 98,338,193
Net OPEB liability as % of covered payroll	210.7%

⁶ Based on covered payroll for FY 2016/17 increased by the payroll growth inflation assumption (2.25%).



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2017/18</i>		<i>FY 2016/17</i>		<i>FY 2015/16</i>		<i>FY 2014/15</i>		<i>FY 2013/14</i>	
Actuarially Determined Contribution (ADC)	\$	35,041,558 ⁷	\$	34,980,369	\$	30,629,812	\$	29,064,071	\$	26,029,514
Contributions in relation to the ADC ⁸		25,813,525		26,871,267		34,862,363		25,319,778		24,834,550
Contribution deficiency / (excess)	\$	9,228,033	\$	8,109,102	\$	(4,232,551)	\$	3,744,293	\$	1,194,964
Covered employee payroll	\$	98,338,193	\$	96,174,272	\$	91,753,000	\$	92,130,000	\$	93,630,000
Contribution as a % of covered employee payroll		26.2%		27.9%		38.0%		27.5%		26.5%
	<i>FY 2012/13</i>		<i>FY 2011/12</i>		<i>FY 2010/11</i>		<i>FY 2009/10</i>		<i>FY 2008/09</i>	
Actuarially Determined Contribution (ADC)	\$	27,418,949	\$	27,793,932	\$	30,154,522	\$	42,105,662	\$	35,270,894
Contributions in relation to the ADC ⁴		11,683,966		18,626,963		13,786,787		9,008,600		7,910,221
Contribution deficiency / (excess)	\$	15,734,983	\$	9,166,969	\$	16,367,735	\$	33,097,062	\$	27,360,673
Covered employee payroll	\$	87,040,000	\$	87,040,000	\$	N/A	\$	N/A	\$	N/A
Contribution as a % of covered employee payroll		13.4%		21.4%		N/A		N/A		N/A

⁷ Refer to the Actuarially Determined Contributions section for the calculation details.

⁸ Includes employer contribution for pay-go cost and (any) pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.56%
Discount rate as of end of fiscal year	3.87%
Service cost	\$ 17,810,791
Interest	19,725,281
Changes of benefit terms	(196,573,638)
Projected earnings on OPEB plan investments	(3,463,111)
Reduction for contributions from active employees	(404,060)
OPEB plan administrative expenses	606,362
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ (3,034,513)
Changes in assumptions	(3,992,351)
Net difference between projected and actual earnings on OPEB plan investments	408,122
Total current period recognition	\$ (6,618,742)
Total OPEB expense	\$ (168,917,117)



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

7. Differences between expected and actual experience of the OPEB plan
8. Changes of assumptions
9. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (21,241,592)	7	\$ (3,034,513)	\$ (18,207,079)

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (27,946,460)	7	\$ (3,992,351)	\$ (23,954,109)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ 2,040,609	5	\$ 408,122	\$ 1,632,487

<i>As of fiscal year ending June 30, 2018</i>	<i>Deferred Outflows</i>		<i>Deferred Inflows</i>	
Differences between expected and actual experience	\$	0	\$	(18,207,079)
Changes in assumptions		0		(23,954,109)
Net difference between projected and actual earnings in OPEB plan investments		1,632,487		0
Total	\$	1,632,487	\$	(42,161,188)



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources - Continued

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2018 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

FYE	Balance
2019	\$ (6,618,742)
2020	\$ (6,618,742)
2021	\$ (6,618,742)
2022	\$ (6,618,743)
2023	\$ (7,026,864)
Thereafter	\$ (7,026,868)

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2018, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.87%.
- The 1% decrease in discount rate would be 2.87%.
- The 1% increase in discount rate would be 4.87%.

As of June 30, 2018	Net OPEB Liability
1% Decrease	\$ 255,835,050
Current Discount Rate	\$ 207,154,143
1% Increase	\$ 166,934,512

The following presents the net OPEB liability as of June 30, 2018, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.5% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.5% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.5% decreasing by 0.5% annually to an ultimate rate of 5.5%.

As of June 30, 2018	Net OPEB Liability
1% Decrease	\$ 162,576,951
Current Health Care Trend Rates	\$ 207,154,143
1% Increase	\$ 261,651,953



Asset Information (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>
Assets	
Cash and cash equivalents	\$ 6,557,086
Securities lending cash collateral	0
Total cash	\$ 6,557,086
Receivables	
Contributions	\$ 0
Accrued interest	252,777
Total receivables	\$ 252,777
Investments	
Fixed income	\$ 111,612,692
Equities	0
Mutual Funds	0
Other	0
Total investments	\$ 111,612,692
Total assets	\$ 118,422,555
Liabilities	
Payables	
Investment management fees	\$ 0
Benefits	(1,059,599)
Total liabilities	\$ (1,059,599)
Net position restricted to OPEB	\$ 117,362,956

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>
Additions	
Contributions received	
Employer	\$ 25,813,525
Employee	404,060
Total contributions	\$ 26,217,585
Investment income	
Net increase in fair value of investments	\$ 1,422,502
Interests and dividends	0
Investment expense, other than from securities lending	0
Securities lending income	0
Securities lending expense	0
Net investment income	\$ 1,422,502
Total additions	\$ 27,640,087
Deductions	
Benefit payments (net of retiree contributions)	\$ (6,993,669)
Administrative expenses	(606,362)
Other	0
Total deductions	\$ (7,600,031)
Net increase in net position	\$ 20,040,056
Net position restricted to OPEB	
Beginning of year	97,322,900
End of year	\$ 117,362,956



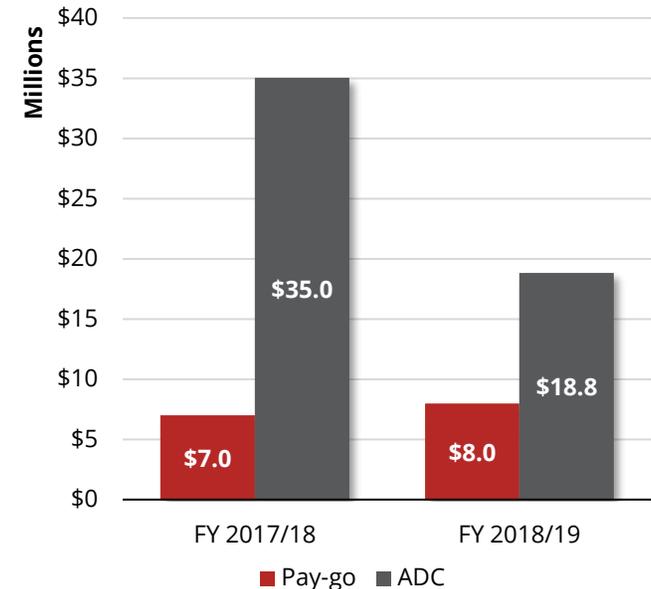
Actuarially Determined Contributions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2017/18	FY 2018/19
Discount rate	4.50%	4.50%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	29 years	28 years
Actuarial accrued liability (AAL) – beginning of year ⁹	\$ 446,693,069	\$ 298,314,722
Actuarial value of assets – beginning of year	(97,322,900)	(117,362,956)
Unfunded AAL – beginning of year	\$ 349,370,169	\$ 180,951,766
Normal Cost ¹⁰	\$ 12,665,792	\$ 7,009,701
Amortization of UAAL	20,866,799	10,999,236
Total normal cost plus amortization	\$ 33,532,591	\$ 18,008,937
Interest to the end of year	1,508,967	810,402
Actuarially Determined Contribution – Preliminary	\$ 35,041,558	\$ 18,819,339
Expected benefit payments ¹¹	6,993,669	7,985,758
Actuarially Determined Contribution – Final¹²	\$ 35,041,558	\$ 18,819,339

Cash vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

⁹ Includes updates to the discount rate and actual trend adjustments for fiscal year ending June 30, 2018, but does not include benefit changes made to the post-65 group.

¹⁰ Reduced for active employee contributions, which were \$404,060 for FY 2017/18 and assumed to be \$414,162 for FY 2018/19 (based on FY 2017/18 contribution increased by total payroll growth assumption of 2.5%).

¹¹ Actual for FY 2017/18

¹² Set to be the greater of the preliminary ADC and expected benefit payments.



Discussion of Discount Rates (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

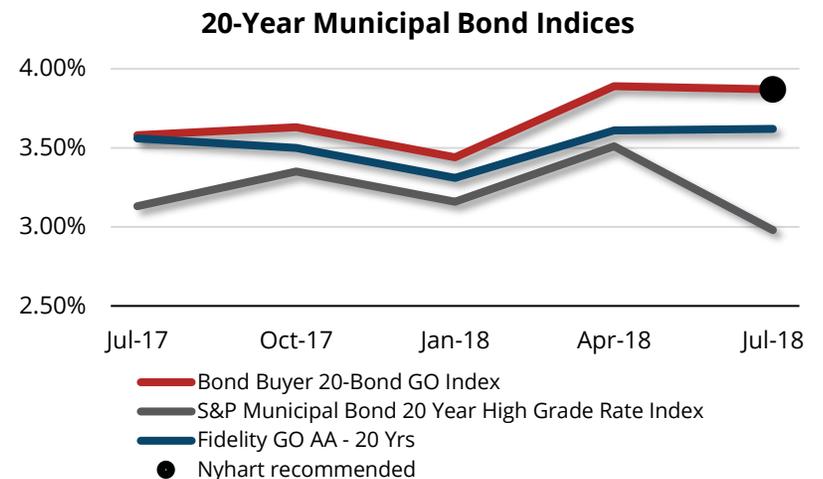
- The long-term expected rate of return on OPEB plan investment is 3.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.25%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2018 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR (JP Morgan)
U.S. Bond	100.00%	1.00%

- The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2017	June 30, 2018
Bond Buyer Go 20-Bond Municipal Bond Index	3.58%	3.87%
S&P Municipal Bond 20-Year High Grade Rate Index	3.13%	2.98%
Fidelity 20-Year Go Municipal Bond Index	3.56%	3.62%
Bond Index Range	3.13% - 3.58%	2.98% - 3.87%
Actual Discount Rate Used	3.56%	3.87%

- The final equivalent single discount rate used for this year's valuation is 3.56% as of July 1, 2017 and 3.87% as of June 30, 2018, due to the long-term expected rate of return on OPEB plan investment that is lower than the 20-year tax-exempt general obligation municipal bonds yield.





Summary of Key Actuarial Assumptions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

For a complete summary of actuarial methods and assumptions, refer to the GASB 74/75 actuarial valuation report for the fiscal year ending June 30, 2017.

Measurement Date

For fiscal year ending June 30, 2018, June 30, 2018 measurement date was used.

Actuarial Valuation Date

July 1, 2017 with results actuarially projected on a “no gain / no loss” basis to get to the June 30, 2018 measurement date. Liabilities as of July 1, 2017 are based on an actuarial valuation date of July 1, 2017.

Discount Rate

3.56% as of July 1, 2017 and 3.87% as of June 30, 2018 for accounting disclosure purposes
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Payroll Growth

2.25% for general wage inflation plus 0.25% for merit and productivity increases.

Inflation Rate

2.25% per year

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2019	8.5%	2024	6.0%
2020	8.0%	2025	5.5%
2021	7.5%	2026	5.0%
2022	7.0%	2027+	4.5%
2023	6.5%		

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and
- annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.



Actuary's Notes (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual claims and enrollment experience for the 23 months ending May 2018 and premium rate changes from 2018 to 2019. Making this change resulted in a decrease in liabilities.

Additionally, we have updated the discount rate assumption to be based on the yield for 20-year-tax-exempt general obligation municipal bonds as of June 30, 2018 (measurement date). The discount rate is 3.87% as of June 30, 2018 and 3.56% as of July 1, 2017. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in a reduction in liabilities.

Finally, results were updated to reflect the following changes to the post-Medicare group:

- Effective on January 1, 2019, all post-65 Medicare eligible retirees will be removed from the ISP's traditional health plan. They will be covered under a Medicare Advantage Plan through Anthem and a Medicare Part D plan with premiums paid fully by the retiree.
 - These members will now also be given a flat HRA contribution of \$57.92 per eligible person for life while participating in the Medicare Advantage plan. This will continue to be available to surviving spouses of deceased retirees. The aggregate HRA contribution for all members is capped at \$1 million annually going forward. For purposes of this valuation, the HRA contribution amount provided by ISP is not assumed to increase in the future.
- All post-65 non-Medicare eligible retirees will continue to be covered under ISP's traditional health plan according to the schedule below.
- All retirees (pre and post-Medicare eligible) will continue to have dental and vision coverage with premiums paid fully by the retiree.

This change caused a significant decrease in liabilities.

Premium Rates

The monthly retiree contributions are set equal to the premium rates effective on January 1, 2018 and 2019 (as determined by the Indiana State Police) for the plans as shown below:

	Eff. 1/1/2018		Eff. 1/1/2019	
	Retiree Only	Retiree plus One Dependent	Retiree Only	Retiree plus One Dependent
<u>Without Medicare</u>				
Basic Plan	\$ 439.95	\$ 587.54	\$ 448.75	\$ 599.29
Optional Plan	\$ 514.45	\$ 729.80	\$ 524.74	\$ 744.40
<u>With Medicare</u>				
Basic Plan	\$ 161.53	\$ 201.95	N/A	N/A
Optional Plan	\$ 188.24	\$ 257.67	N/A	N/A

SECTION E – CONSERVATION AND EXCISE POLICE



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2017/18	
Total OPEB Liability		
Total OPEB liability – beginning of year	\$	56,023,950
Service cost		1,794,865
Interest		2,035,351
Changes of benefit terms		0
Changes in assumptions		(3,386,967)
Differences between expected and actual experience		5,738,944
Benefit payments		(1,303,476)
Net change in total OPEB liability	\$	4,878,717
Total OPEB liability – end of year	\$	60,902,667
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$	15,175,762
Contributions – employer		6,240,555
Contributions – active employees		0
Net investment income		213,433
Benefit payments		(1,303,476)
Trust administrative expenses		(90,456)
Net change in plan fiduciary net position	\$	5,060,056
Plan fiduciary net position – end of year	\$	20,235,818
Net OPEB Liability – end of year	\$	40,666,849
Plan fiduciary net position as % of total OPEB liability		33.2%
Covered employee payroll ¹³	\$	16,842,290
Net OPEB liability as % of covered payroll		241.5%

¹³ Based on covered payroll for FY 2016/17 increased by the payroll growth inflation assumption (2.25%).



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	FY 2017/18		FY 2016/17		FY 2015/16		FY 2014/15		FY 2013/14	
Actuarially Determined Contribution (ADC)	\$	3,831,452 ¹⁴	\$	3,348,809	\$	3,312,731	\$	3,123,622	\$	2,821,614
Contributions in relation to the ADC ¹⁵		6,240,555		3,717,824		3,575,032		2,436,777		2,482,148
Contribution deficiency / (excess)	\$	(2,409,103)	\$	(369,015)	\$	(262,301)	\$	686,845	\$	339,466
Covered employee payroll	\$	16,842,290	\$	16,471,677	\$	14,497,000	\$	15,106,000	\$	15,969,000
Contribution as a % of covered employee payroll		37.1%		22.6%		24.7%		16.1%		15.5%
	FY 2012/13		FY 2011/12		FY 2010/11		FY 2009/10		FY 2008/09	
Actuarially Determined Contribution (ADC)	\$	3,052,678	\$	3,674,720	\$	4,423,420	\$	5,372,510	\$	4,178,292
Contributions in relation to the ADC ⁹		2,892,842		6,889,202		1,335,846		1,303,244		982,400
Contribution deficiency / (excess)	\$	159,836	\$	(3,214,482)	\$	3,087,574	\$	4,069,266	\$	3,195,892
Covered employee payroll	\$	25,532,000	\$	12,600,000	\$	N/A	\$	N/A	\$	12,900,000
Contribution as a % of covered employee payroll		11.3%		54.7%		N/A		N/A		7.6%

¹⁴ Refer to the Actuarially Determined Contributions section for the calculation details.

¹⁵ Includes employer contribution for pay-go cost paid from General Fund and pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.56%
Discount rate as of end of fiscal year	3.87%
Service cost	\$ 1,794,865
Interest	2,035,351
Changes of benefit terms	0
Projected earnings on OPEB plan investments	(571,340)
Reduction for contributions from active employees	0
OPEB plan administrative expenses	90,456
Current period recognition of deferred outflows / (inflows) of resources	
Differences between expected and actual experience	\$ 717,368
Changes in assumptions	(423,371)
Net difference between projected and actual earnings on OPEB plan investments	71,581
Total current period recognition	\$ 365,578
Total OPEB expense	\$ 3,714,910



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

10. Differences between expected and actual experience of the OPEB plan
11. Changes of assumptions
12. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ 5,738,944	8	\$ 717,368	\$ 5,021,576

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ (3,386,967)	8	\$ (423,371)	\$ (2,963,596)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2018</i>
June 30, 2018	\$ 357,907	5	\$ 71,581	\$ 286,326

<i>As of fiscal year ending June 30, 2018</i>	<i>Deferred Outflows</i>		<i>Deferred Inflows</i>	
Differences between expected and actual experience	\$	5,021,576	\$	0
Changes in assumptions		0		(2,963,596)
Net difference between projected and actual earnings in OPEB plan investments		286,326		0
Total	\$	5,307,902	\$	(2,963,596)



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources - Continued

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2018 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2019	\$ 365,578
2020	\$ 365,578
2021	\$ 365,578
2022	\$ 365,580
2023	\$ 293,997
Thereafter	\$ 587,995

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2018, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.87%.
- The 1% decrease in discount rate would be 2.87%.
- The 1% increase in discount rate would be 4.87%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 52,631,111
Current Discount Rate	\$ 40,666,849
1% Increase	\$ 31,352,010

The following presents the net OPEB liability as of June 30, 2018, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.5% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.5% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.5% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 30,023,803
Current Health Care Trend Rates	\$ 40,666,849
1% Increase	\$ 54,807,467



Asset Information (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>
Assets	
Cash and cash equivalents	\$ 878,930
Securities lending cash collateral	0
Total cash	\$ 878,930
Receivables	
Contributions	\$ 70,012
Accrued interest	19,488
Total receivables	\$ 968,430
Investments	
Fixed income	\$ 19,446,173
Equities	0
Mutual Funds	0
Other	0
Total investments	\$ 19,446,173
Total assets	\$ 20,414,603
Liabilities	
Payables	
Investment management fees	\$ 0
Benefits	(178,785)
Total liabilities	\$ (178,785)
Net position restricted to OPEB	\$ 20,235,818

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>
Additions	
Contributions received	
Employer	\$ 6,240,555
Employee	0
Total contributions	\$ 6,240,555
Investment income	
Net increase in fair value of investments	\$ 213,433
Interests and dividends	0
Investment expense, other than from securities lending	0
Securities lending income	0
Securities lending expense	0
Net investment income	\$ 213,433
Total additions	\$ 6,453,988
Deductions	
Benefit payments (net of retiree contributions)	\$ (1,303,476)
Administrative expenses	(90,456)
Other	0
Total deductions	\$ (1,393,932)
Net increase in net position	\$ 5,060,056
Net position restricted to OPEB	
Beginning of year	15,175,762
End of year	\$ 20,235,818



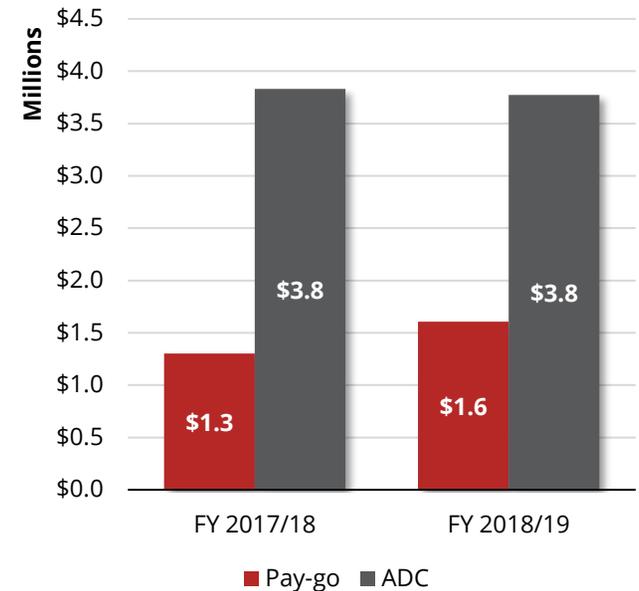
Actuarially Determined Contributions (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2017/18	FY 2018/19
Discount rate	4.50%	4.50%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	29 years	28 years
Actuarial accrued liability (AAL) – beginning of year	\$ 52,333,525	\$ 54,773,811
Actuarial value of assets – beginning of year	(15,175,762)	(20,235,818)
Unfunded AAL – beginning of year	\$ 37,157,763	\$ 34,537,993
Normal Cost	\$ 1,447,143	\$ 1,512,264
Amortization of UAAL	2,219,318	2,099,408
Total normal cost plus amortization	\$ 3,666,461	\$ 3,611,672
Interest to the end of year	164,991	162,525
Actuarially Determined Contribution – Preliminary	\$ 3,831,452	\$ 3,774,197
Expected benefit payments ¹⁶	1,303,476	1,606,119
Actuarially Determined Contribution – Final¹⁷	\$ 3,831,452	\$ 3,774,197

Cash vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

¹⁶ Actual for FY 2017/18

¹⁷ Set to be the greater of the preliminary ADC and expected benefit payments.



Discussion of Discount Rates (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

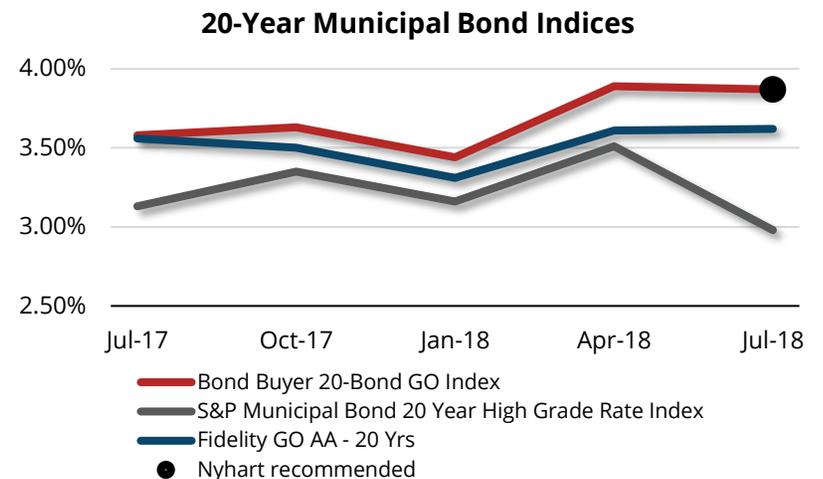
- The long-term expected rate of return on OPEB plan investment is 3.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.25%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2018 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR (JP Morgan)
U.S. Bond	100.00%	1.00%

- The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2017	June 30, 2018
Bond Buyer Go 20-Bond Municipal Bond Index	3.58%	3.87%
S&P Municipal Bond 20-Year High Grade Rate Index	3.13%	2.98%
Fidelity 20-Year Go Municipal Bond Index	3.56%	3.62%
Bond Index Range	3.13% - 3.58%	2.98% - 3.87%
Actual Discount Rate Used	3.56%	3.87%

- The final equivalent single discount rate used for this year's valuation is 3.56% as of July 1, 2017 and 3.87% as of June 30, 2018, due to the long-term expected rate of return on OPEB plan investment that is lower than the 20-year tax-exempt general obligation municipal bonds yield.





Summary of Key Actuarial Assumptions (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

For a complete summary of actuarial methods and assumptions, refer to the GASB 74/75 actuarial valuation report for the fiscal year ending June 30, 2017.

Measurement Date

For fiscal year ending June 30, 2018, June 30, 2018 measurement date was used.

Actuarial Valuation Date

July 1, 2017 with results actuarially projected on a “no gain / no loss” basis to get to the June 30, 2018 measurement date. Liabilities as of July 1, 2017 are based on an actuarial valuation date of July 1, 2017.

Discount Rate

3.56% as of July 1, 2017 and 3.87% as of June 30, 2018 for accounting disclosure purposes
Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

Payroll Growth

2.25% for general wage inflation plus 0.25% for merit and productivity increases.

Inflation Rate

2.25% per year

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2019	8.5%	2024	6.0%
2020	8.0%	2025	5.5%
2021	7.5%	2026	5.0%
2022	7.0%	2027+	4.5%
2023	6.5%		

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Cost Method

Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:

- service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and
- annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.



Actuary's Notes (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual claims and enrollment experience for the 23 months ending May 2018 and premium rate changes from 2018 to 2019. Making this change resulted in an increase in liabilities.

Additionally, we have updated the discount rate assumption to be based on the yield for 20-year-tax-exempt general obligation municipal bonds as of June 30, 2018 (measurement date). The discount rate is 3.87% as of June 30, 2018 and 3.56% as of July 1, 2017. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in a reduction in liabilities.

Retiree Contributions

2019 monthly retiree contributions effective on January 1, 2019 as determined by CEP are split by benefit as shown below. The dental and vision costs below are determined based on dental and vision claims and enrollment information for the 23-month period ending May 31, 2018 projected to the 2018/19 plan year and includes projected administrative expenses effective on January 1, 2019. Contributions are allocated to vision benefit first, dental second, and medical last.

	Single	Member + Spouse	Incremental Spouse Cost
<u>Pre-Medicare</u>			
Medical	\$ 330.01	\$ 623.02	\$ 293.01
Dental	\$ 33.37	\$ 66.74	\$ 33.37
Vision	\$ 5.62	\$ 11.24	\$ 5.62
Total	\$ 369.00	\$ 701.00	\$ 332.00
<u>Post-Medicare</u>			
Medical	\$ 108.39	\$ 157.84	\$ 49.45
Dental	\$ 33.37	\$ 66.74	\$ 33.37
Vision	\$ 5.62	\$ 11.24	\$ 5.62
Total	\$ 147.38	\$ 235.82	\$ 88.44